

CLAIM AMENDMENTS

Please amend the claims to delete the text that is shown below in strikethrough text and replace those deletions with the underlined text.

1. **(currently amended)** A method of treating a subterranean zone penetrated by a well bore comprising the steps of:

(a) preparing providing an environmentally benign gelled a gelled
and cross-linked viscous treating fluid ~~that delayingly breaks into a low viscosity fluid~~
comprising that comprises water, a viscosity producing polymer, a boron cross-linking agent
for cross-linking ~~said the~~ **the** polymer, and a delayed cross-link delinker ~~that chelates the boron~~
~~and breaks said treating fluid into a low viscosity fluid selected from the group consisting~~
~~of polysuccinamide and polyaspartic acid; and~~

(b) introducing ~~said the~~ the treating fluid into ~~said the~~ the subterranean zone.

2. **(currently amended)** The method of claim 1 wherein ~~said the~~ **the** water ~~is selected from the~~
~~group consisting of~~ **comprises** fresh water ~~and or~~ **or** salt water.

3. **(currently amended)** The method of claim 1 wherein ~~said the~~ **the** viscosity producing polymer
~~is~~ **comprises** guar, a guar derivative, a cellulose derivative ~~or a biopolymer selected from the~~
~~group consisting of guar,~~ hydroxypropylguar, carboxymethylhydroxypropylguar,
carboxymethylguar, hydroxyethylcellulose, hydroxyethylcellulose grafted with glycidol or vinyl
phosphonic acid, carboxymethylcellulose, carboxymethylhydroxyethylcellulose, xanthan, ~~and or~~
succinoglycan.

4. **(currently amended)** The method of claim 1 wherein ~~said the~~ viscosity producing polymer **is comprises** a substantially fully hydrated depolymerized polymer.
5. **(currently amended)** The method of claim 1 wherein ~~said the~~ viscosity producing polymer **is comprises** a substantially fully hydrated depolymerized guar, ~~or~~ cellulose derivative ~~polymer~~ ~~selected from the group consisting of,~~ hydroxypropylguar, carboxymethylhydroxypropylguar, carboxymethylguar, hydroxyethylcellulose, carboxymethylcellulose, ~~and or~~ carboxymethylhydroxy-ethylcellulose.
6. **(currently amended)** The method of claim 1 wherein ~~said the~~ viscosity producing polymer **is comprises** a substantially fully hydrated depolymerized hydroxypropylguar.
7. **(currently amended)** The method of claim 1 wherein ~~said the~~ viscosity producing polymer is present in ~~said the~~ treating fluid in an amount in the range of from about 0.12% to about 2.5% by weight of ~~said the~~ water therein.
8. **(currently amended)** The method of claim 1 wherein ~~said the~~ boron cross-linking agent for cross-linking ~~said the~~ polymer ~~is selected from the group consisting of~~ **comprises** boric acid, disodium octaborate tetrahydrate, sodium diborate, ~~pentaborates~~ **a pentaborate**, ~~and minerals~~ **or a mineral** containing boron that ~~release~~ **is capable of releasing** the boron upon hydrolysis.
9. **(currently amended)** The method of claim 1 wherein ~~said the~~ boron cross-linking ~~compound is~~ **agent comprises** boric acid.
10. **(currently amended)** The method of claim 1 wherein ~~said the~~ boron cross-linking agent is present in ~~said the~~ treating fluid in an amount in the range of from about 0.0025% to about 0.1% by weight of ~~said the~~ water therein.

11. (currently amended) The method of claim 1 wherein ~~said the~~ delayed cross-link delinker ~~is polysuccinamide~~ comprises polysuccinimide or polyaspartic acid.

12. (currently amended) The method of claim 1 wherein ~~said the~~ delayed cross-link delinker is present in ~~said the~~ treating fluid in an amount in the range of from about 0.1% to about 1% by weight of ~~said the~~ water therein.

13. (currently amended) The method of claim 1 ~~which further comprises wherein the viscous treating fluid further comprises~~ a pH adjusting compound ~~for elevating the pH of said treating fluid~~.

14. (currently amended) The method of claim 13 wherein ~~said the~~ pH adjusting compound ~~is selected from the group consisting of~~ comprises sodium hydroxide, ~~potassium~~ potassium hydroxide, ~~and or~~ lithium hydroxide.

15. (currently amended) The method of claim 13 wherein ~~said the~~ pH adjusting compound ~~is~~ comprises sodium hydroxide.

16. (currently amended) The method of claim 13 wherein ~~said the~~ pH adjusting compound is present in ~~said the~~ treating fluid in an amount in the range of from about 0.01% to about 1% by weight of ~~said the~~ water therein.

17. (currently amended) The method of claim 1 wherein ~~said the~~ viscous treating fluid further comprises a buffer.

18. (currently amended) The method of claim 17 wherein ~~said the~~ buffer ~~is selected from the group consisting of~~ comprises sodium carbonate, potassium carbonate, sodium bicarbonate,

potassium bicarbonate, sodium diacetate, potassium diacetate, sodium phosphate, potassium phosphate, sodium dihydrogen phosphate, ~~and~~ or potassium dihydrogen phosphate.

19. **(currently amended)** The method of claim 17 wherein ~~said the~~ buffer ~~is~~ comprises sodium carbonate.

20. **(currently amended)** The method of claim 17 wherein ~~said the~~ buffer is present in ~~said the~~ treating fluid in an amount in the range of from about 0.01% to about 0.25% by weight of ~~said the~~ water therein.

21. **(currently amended)** The method of claim 1 wherein ~~said the~~ viscous treating fluid further comprises a surfactant ~~for~~ , the surfactant being capable of preventing the formation of emulsions between ~~said the~~ treating fluid and subterranean formation fluids.

22. **(currently amended)** The method of claim 21 wherein ~~said the~~ surfactant is ~~selected from the group consisting of~~ comprises an alkyl ~~sulfonates~~ sulfonate, alkyl an alkyl aryl ~~sulfonates~~ such as sulfonate, a salt of dodecylbenzene sulfonic acid, alkyl an alkyl trimethylammonium chloride, ~~branched~~ a branched alkyl ethoxylated ~~alcohols~~ alcohol, a phenol-formaldehyde nonionic resin ~~blends, cocobetaines, dioctylsodium~~ blend, a cocobetaine, a dioctylsodium sulfosuccinate, ~~imidazolines~~ an imidazoline, ~~alpha~~ an alpha olefin ~~sulfonates~~ sulfonate, a linear alkyl ethoxylated ~~alcohols~~ alcohol, ~~and trialkyl~~ or a trialkyl benzylammonium chloride.

23. **(currently amended)** The method of claim 21 wherein ~~said the~~ surfactant ~~is~~ comprises a salt of dodecylbenzene sulfonic acid.

24. (currently amended) The method of claim 21 wherein ~~said~~ the surfactant is present in ~~said~~ the treating fluid in an amount in the range of from about 0.01% to about 0.3% by weight of ~~said~~ the water therein.

25. (currently amended) ~~An environmentally benign~~ A viscous treating fluid that delayingly breaks into a low viscosity fluid comprising:

water;

a viscosity producing polymer;

a boron cross-linking agent ~~for cross-linking said polymer~~; and

a delayed cross-link delinker ~~that chelates the boron and breaks said treating fluid into a low viscosity fluid selected from the group consisting of polysuccinamide and polyaspartic acid.~~

26. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ water is ~~selected from the group consisting of~~ comprises fresh water ~~and or~~ salt water.

27. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ viscosity producing polymer is comprises guar, a guar derivative, a cellulose derivative ~~or a biopolymer selected from the group consisting of~~ guar, hydroxypropylguar, carboxymethylhydroxypropylguar, carboxymethylguar, hydroxyethylcellulose, hydroxyethylcellulose grafted with glycidol or vinyl phosphonic acid, carboxymethylcellulose, carboxymethylhydroxyethylcellulose, xanthan, ~~and or~~ succinoglycan.

28. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ viscosity producing polymer is comprises a substantially fully hydrated depolymerized polymer.

29. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ viscosity producing polymer is comprises a substantially fully hydrated depolymerized guar or cellulose derivative ~~polymer selected from the group consisting of comprising~~ hydroxypropylguar, carboxymethylhydroxypropylguar, carboxymethylguar, hydroxyethylcellulose, carboxymethylcellulose, ~~and or~~ carboxymethylhydroxy-ethylcellulose.

30. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ viscosity producing polymer is comprises a substantially fully hydrated depolymerized hydroxypropylguar.

31. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ viscosity producing polymer is present in ~~said the~~ treating fluid in an amount in the range of from about 0.12% to about 2.5% by weight of ~~said the~~ water therein.

32. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ boron cross-linking agent for cross-linking ~~said the~~ polymer ~~is selected from the group consisting of~~ comprises boric acid, disodium octaborate tetrahydrate, sodium diborate, ~~pentaborates a pentaborate, and minerals or a mineral~~ containing boron ~~that release the boron upon hydrolysis.~~

33. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ boron cross-linking compound is comprises boric acid.

34. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ boron cross-linking agent is present in ~~said the~~ treating fluid in an amount in the range of from about 0.0025% to about 0.1% by weight of ~~said the~~ water therein.

35. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ delayed cross-link delinker ~~is polysuccinamide~~ comprises polysuccinimide or polyaspartic acid.

36. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ delayed cross-link delinker is present in ~~said the~~ treating fluid in an amount in the range of from about 0.1% to about 1% by weight of ~~said the~~ water therein.

37. (currently amended) The viscous treating fluid of claim 25 ~~which that~~ further comprises a pH adjusting compound ~~for elevating the pH of said treating fluid~~.

38. (currently amended) The viscous treating fluid of claim 37 wherein ~~said the~~ pH adjusting compound ~~is selected from the group consisting of~~ comprises sodium hydroxide, potassium hydroxide, ~~and or~~ lithium hydroxide.

39. (currently amended) The viscous treating fluid of claim 37 wherein ~~said the~~ pH adjusting compound ~~is~~ comprises sodium hydroxide.

40. (currently amended) The viscous treating fluid of claim 37 wherein ~~said the~~ pH adjusting compound is present in ~~said the~~ treating fluid in an amount in the range of from about 0.01% to about 1% by weight of ~~said the~~ water therein.

41. (currently amended) The viscous treating fluid of claim 25 ~~which that~~ further comprises a buffer.

42. (currently amended) The viscous treating fluid of claim 41 wherein ~~said the~~ buffer ~~is selected from the group consisting of~~ comprises sodium carbonate, potassium carbonate, sodium bicarbonate, potassium bicarbonate, sodium diacetate, potassium diacetate, sodium

phosphate, potassium phosphate, sodium dihydrogen ~~phosphate~~ phosphate, ~~and or~~ potassium dihydrogen phosphate.

43. (currently amended) The viscous treating fluid of claim 41 wherein ~~said the~~ buffer is comprises sodium carbonate.

44. (currently amended) The viscous treating fluid of claim 41 wherein ~~said the~~ buffer is present in ~~said the~~ treating fluid in an amount in the range of from about 0.01% to about 0.25% by weight of ~~said the~~ water therein.

45. (currently amended) The viscous treating fluid of claim 25 wherein ~~said the~~ treating fluid further comprises a ~~surfactant for preventing the formation of emulsions between said treating fluid and subterranean formation fluids~~ surfactant.

46. (currently amended) The viscous treating fluid of claim 45 wherein ~~said the~~ surfactant is ~~selected from the group consisting of~~ comprises an alkyl ~~sulfonates~~ sulfonate, alkyl ~~an alkyl~~ aryl ~~sulfonates such as~~ sulfonate, a salt of dodecylbenzene sulfonic acid, ~~alkyl an alkyl~~ trimethylammonium chloride, ~~branched-~~ a branched alkyl ethoxylated ~~alcohols~~, alcohol, a phenol-formaldehyde nonionic resin ~~blends, cocobetaines, dioctylsodium-~~ blend, a cocobetaine, a dioctylsodium sulfosuccinate, ~~imidazolines~~ an imodazoline, ~~alpha an alpha~~ olefin ~~sulfonates~~, sulfonate, a linear alkyl ethoxylated ~~alcohols~~ alcohol, ~~and trialkyl or a~~ trialkyl benzylammonium chloride.

47. (currently amended) The viscous treating fluid of claim 45 wherein ~~said the~~ surfactant is comprises a salt of dodecylbenzene sulfonic acid.

48. **(currently amended)** The viscous treating fluid of claim 45 wherein ~~said~~ the surfactant is present in ~~said~~ the treating fluid in an amount in the range of from about 0.01% to about 0.3% by weight of ~~said~~ the water therein.

49. **(new)** A viscous treating fluid comprising a boron cross-linked viscosity producing polymer and a delayed cross-link delinker, the delayed cross-link delinker comprising polysuccinimide or polyaspartic acid.

50. **(new)** A method of reducing the viscosity of a viscous treating fluid comprising the steps of:
providing a viscous treating fluid that comprises a boron cross-linked viscosity producing polymer and a delayed cross-link delinker, the delayed cross-link delinker comprising polysuccinimide or polyaspartic acid; and
allowing the cross-linked viscosity producing polymer and the delayed cross-link delinker to interact so as to reduce the viscosity of the viscous treating fluid.

51. **(new)** The method of claim 49 wherein the viscous treating fluid is suitable for placing gravel packs or fracturing subterranean zones.

52. **(new)** The method of claim 49 wherein the boron cross-linked viscosity producing polymer is formed by cross-linking a viscosity producing polymer with a boron cross-linking agent.

53. **(new)** The viscous treating fluid of claim 25 wherein the boron cross-linking agent is capable of crosslinking the viscosity producing polymer.

54. **(new)** The viscous treating fluid of claim 25 wherein the delayed cross-link delinker is capable of chelating boron.

55. **(new)** The viscous treating fluid of claim 25 wherein the delayed cross-link delinker is capable of breaking the viscous treating fluid into a lower viscosity viscous treating fluid.